WHAT IS CLAIMED IS:

1. A method for upgrading service class of connections in a wireless network, comprising:

identifying a congested CoS in a sector of a wireless network;

determining bandwidth availability in the sector of the wireless network at an enhanced CoS in relation to the congested CoS;

selecting a communications session in the congested CoS for upgrading; and

upgrading the communications session to the enhanced CoS.

2. The method of Claim 1, further comprising:

accessing a policy information base comprising service policies for communication sessions in the congested CoS;

identifying an upgradable connection based on the service policy; and

selecting the upgradable communication session for upgrading.

3. The method of Claim 1, wherein bandwidth availability at the enhanced CoS is determined based on at least one of:

available queue size in the sector,

a number of communications sessions upgraded to the enhanced CoS, and

an increase in performance available to the communications session in the sector at the enhanced CoS.

4.   The method of Claim 1, wherein the congested CoS is identified based on at least one of the following:

dropped packets,

a floating average of a queue size, and

5   a current queue size for the CoS in the sector.

5.   The method of Claim 1, wherein upgrading the communications session to the enhanced CoS comprises modifying a CoS identifier of one or more packets of the

10   communications session.

6.   The   method   of   Claim   1,   wherein   the communications session comprises a communications session from a mobile device.

15

7. A system for allowing service class upgradability on a wireless network, comprising:

logic encoded in media; and

the logic operable to identify a congested CoS in a

5   sector of a wireless network, to determine bandwidth availability in the sector of the wireless network at an enhanced CoS in relation to the congested CoS, to select a communications session in the congested CoS for upgrading, and to upgrade the communications session to

10   the enhanced CoS.

8. The system of Claim 7, the logic further operable to access a policy information base comprising service policies for communication sessions in the

15   congested CoS, to identify an upgradable connection based on the service policy, and to select the upgradable communication session to upgrade.

9. The system of Claim 7, wherein bandwidth

20   availability at the enhanced CoS is determined based on at least one of:

available queue size in the sector,

a number of communications sessions upgraded to the enhanced CoS, and

25   an increase in performance available to the communications session in the sector at the enhanced CoS.

23

10.   The system of Claim 7, wherein the congested CoS is identified based on at least one of the following:

dropped packets,

a floating average of a queue size, and

5   a current queue size for the CoS in the sector.

11.   The system of Claim 7, wherein the logic operable to upgrade the communications session to the enhanced CoS comprises logic operable to modify a CoS identifier of one or more packets of the communications session.

12.   The system of Claim 7, wherein the communications session comprises a communications session from a mobile device.

13. A system for upgrading service class of connections in a wireless network, comprising:

means for identifying a congested CoS in a sector of a wireless network;

5   means for determining bandwidth availability in the sector of the wireless network at an enhanced CoS in relation to the congested CoS;

means for selecting a communications session in the congested CoS for upgrading; and

10   means for upgrading the communications session to the enhanced CoS.

14. The system of Claim 13, further comprising:

means for accessing a policy information base

15   comprising service policies for communication sessions in the congested CoS;

means for identifying an upgradable connection based on the service policy; and

means for selecting the upgradable communication

20   session for upgrading.

15. The system of Claim 13, wherein bandwidth availability at the enhanced CoS is determined based on at least one of:

25   available queue size in the sector,

a number of communications sessions upgraded to the enhanced CoS, and

an increase in performance available to the communications session in the sector at the enhanced CoS.

30

16. The system of Claim 13, wherein the congested CoS is identified based on at least one of the following:

dropped packets,

a floating average of a queue size, and

5   a current queue size for the CoS in the sector.

17. The system of Claim 13, wherein means for upgrading the communications session to the enhanced CoS comprises means for modifying a CoS identifier of one or

10   more packets of the communications session.

18. The system of Claim 13, wherein the communications session comprises a communications session from a mobile device.

15

19. A method for upgrading service class of connections in a wireless network, comprising:

identifying a congested CoS in a sector a wireless network, wherein the congested CoS is identified based on at least one of the following:

dropped packets,

a floating average of a queue size, and

a current queue size for the CoS in the sector;

determining bandwidth availability in the sector the wireless network at an enhanced CoS in relation to the congested CoS;

accessing a policy information base comprising service policies for communication sessions in the congested CoS;

identifying an upgradable connection based on the service policy;

selecting the upgradable communication session for upgrading; and

upgrading a selected communications session to the enhanced CoS, wherein upgrading the communications session to the enhanced CoS comprises modifying a CoS identifier of one or more packets of the communications session.

20. A method for determining a service class for a connection to be established, comprising:

determining a base service class for the connection;

determining an upgraded service class for the
5 connection;

determining whether a performance increase is available to the connection by upgrading its service class from the base service class to the upgraded service class; and

10 upgrading to the service class of the connection to the upgraded service class if the performance increase is available.

21. The method of Claim 20, further comprising
15 determining the base service class and the upgraded service class for the connection from a service policy associated with the connection.

22. The method of Claim 20, further comprising:
20 estimating the performance increase available to the connection by upgrading its service class from the base service class to the upgraded service class; and

upgrading the service class if the performance increase meets an upgraded criteria.
25

23. The method of Claim 22, further comprising determining the performance increase available to the connection by upgrading its service class from the base class to the upgraded class based on packet delay of at
30 least one of the base service class and the upgraded service class.

28

24. The method of Claim 23, further comprising determining the performance increase available to the connection by upgrading its service class from the base class to the upgraded class based on packet delay at both

5   of the base service class and the upgraded service class.

25. The method of Claim 23, further comprising determining the performance increase available to the connection by upgrading its service class from the base

10   class to the upgraded class based on packet drop of at least one of the base service class and the upgraded service class.

26. The method of Claim 23, further comprising

15   determining the performance increase available to the connection by upgrading its service class from the base class to the upgraded class based on packet drops at both of the base service class and the upgraded service class.

20   27. The method of Claim 23, further comprising determining the performance increase available to the connection by upgrading its service class from the base class to the upgraded class based on a current packet queue size of each of the base and the upgraded service

25   classes for a sector of a wireless network in which the connection is to be established.

28. The method of Claim 23, further comprising determining the performance increase available to the connection by upgrading its service class from the base class to the upgraded class based on a floating window average of the packet queue size for a sector of a wireless network in which the connection is to be established.

29. The method of Claim 23, further comprising determining the performance increase available to the connection by upgrading its service class from the base class to the upgraded class based on both measured and forecasted criteria for both of the base service class and the upgraded service class.

30.   A system for determining a service class for a connection to be established, comprising:

logic encoded in media; and

the logic operable to determine a base service class
5   for the connection, to determine an upgraded service class for the connection, to determine whether a performance increase is available to the connection by upgrading its service class from the base service class to the upgraded service class, and to upgrade to the
10   service class of the connection to the upgraded service class if the performance increase is available.

31.   The system of Claim 30, the logic further operable to determine the base service class and the
15   upgraded service class for the connection from a service policy associated with the connection.

32.   The system of Claim 30, the logic further operable to estimate the performance increase available
20   to the connection by upgrading its service class from the base service class to the upgraded service class and to upgrade the service class if the performance increase meets an upgraded criteria.

25   33.   The system of Claim 32, the logic further operable to determine the performance increase available to the connection by upgrading its service class from the base class to the upgraded class based on packet delay of at least one of the base service class and the upgraded
30   service class.

34. The system of Claim 33, the logic further operable to determine the performance increase available to the connection by upgrading its service class from the base class to the upgraded class based on packet delay at
5 both of the base service class and the upgraded service class.

35. The system of Claim 33, the logic further operable to determine the performance increase available
10 to the connection by upgrading its service class from the base class to the upgraded class based on packet drop of at least one of the base service class and the upgraded service class.

15 36. The system of Claim 33, the logic further operable to determine the performance increase available to the connection by upgrading its service class from the base class to the upgraded class based on packet drops at both of the base service class and the upgraded service
20 class.

37. The system of Claim 33, the logic further operable to determine the performance increase available to the connection by upgrading its service class from the
25 base class to the upgraded class based on a current packet queue size of each of the base and the upgraded service classes for a sector of a wireless network in which the connection is to be established.

38. The system of Claim 33, the logic further operable to determine the performance increase available to the connection by upgrading its service class from the base class to the upgraded class based on a floating
5　window average of the packet queue size for a sector of a wireless network in which the connection is to be established.

39. The system of Claim 33, the logic further
10　operable to determine the performance increase available to the connection by upgrading its service class from the base class to the upgraded class based on both measured and forecasted criteria for both of the base service class and the upgraded service class.
15